



Hanne Owens, RN, BSN, CFCN
 HEALTHY FEET are HAPPY FEET



Board-Certified Nursing Foot Care & Teaching
 Clinic , Residential, Group-Settings, Tucson, Arizona
www.HFHE.us - (520) 579-4340 - office@HFHE.us

Hand-Out

-When do You Need to Seek Medical Help-

07/15/14

Knowledge is power, and this hand-out offers you tips on when a “little-something” or a “big-something” on your feet or legs requires medical attention.

Good assessment skills and good common sense are necessary to determine if the problem is insignificant and can be treated at home or if medical attention should be sought.

Your general medical health will be an important determining factor if medical attention is needed, and how soon you should seek it.

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1-Do you already have a diagnosis and are you being treated:

If you have a medical problem that has already been diagnosed, you don't have to go back to the doctor for a new diagnosis. *You only have to let the doctor know if the problem unexpectedly becomes worse, or if it changes into a new problem.*

2-Knowing the difference between signs and symptoms:

The doctor is able to see the signs of a problem or injury; you, on the other hand, has to tell the doctor what symptoms the problem or injury gives you. Symptoms are not visible at the site of the problem or injury. They are another name for the way the problem or injury affects your body. Do you have aches and pains; do you have numbness, burning, or tingling? These are just a few choices of the more common symptoms. When you see the doctor, make sure to mention all the symptoms that you experience, so that a proper diagnosis and treatment can be made.

3-Knowing the signs and symptoms of infections:

Signs of an infection are usually redness and elevated temperature at the site. Sometimes swelling, and puss are also included. Be aware of additional redness in a wound in the process of healing up. Symptoms of an infection include pain, sometimes itching, sometimes a systemic fever, and sometimes feeling tired. *If you have a deep cut, you'll need to seek medical help for proper cleansing and closing of the cut, no matter what your general health status is. If you have a small cut, abrasion, blister, or other skin injury, you can usually "doctor" this at home; unless you're diabetic with poor circulation, or have poor circulation for other reasons. In that case, you want to seek medical treatment, as your chances of healing are greatly diminished due to the poor circulation, and possibly also due to numbness, leaving you unable to feel the pain, usually associated with an infection.*



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Sometimes, your skin looks red and inflamed on your lower legs. It's often associated with swelling, such as dependent edema in your lower legs, called "stasis dermatitis." It's an inflammation in your skin caused by poor venous flow. It's often associated with hemosiderin deposits, which is deposits into the skin of parts of the red blood cells that have escaped through the weakened walls of expanded veins. Hemosiderin deposits are permanent and don't cause you any harm. Stasis dermatitis can cause scaling, and itchy skin. *Antibiotics for stasis dermatitis may help some; however, they won't be very effective until the swelling is decreased.*

Cellulitis is an infection in the skin and/or the underlying subcutaneous fatty tissue with redness, often tender to touch, sometimes associated with a fever, and sometimes causing tender lymph nodes in the groin or armpit, depending upon the location. *Cellulitis is not always associated with swelling, and antibiotic treatment has a much higher chance of being effective if no swelling is present.*

If you experience new areas with redness, it would be a good idea to see a doctor. If there's swelling involved, the doctor may try to find ways to decrease the swelling before antibiotics are effective. Hemosiderin deposits are often involved, and you may end up with reddish or brownish blotching on your skin forever, even after the inflammation is gone.

4-Sudden swelling and pain in your foot. Is it a fracture of a bone, a sprain of a ligament, a strain of a tendon, or a complete tear of a ligament or tendon:

Let's first define what the four terms mean and how they affect you:

- A fracture is a break in a bone. It can be severe and cause the bone to break entirely across, or it can be a chip or hair-line fracture affecting only part of



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the bone. If the bone is in a weight-bearing area, it usually needs to be protected either with a cast or a walking boot, to off-load the pressure. A

fracture of a bone will hurt, but there may only be minimal swelling. A fractured bone will often cause bruising at the site, as the inside of the bone is very vascular. *If one of the smaller toes is broken, it may be taped to the toe next to it for stability. It should heal on its own. If the great toe, or any other bone in the foot or body is broken, it needs to be seen by a doctor for a diagnosis and treatment. Broken ribs usually heal on their own, just like broken toes. However, you definitely want to see a doctor for this kind of injury.*

- Ligaments are fibrous bands that hold bones together. They can stretch only so far. If the foot is twisted out of normal position, the ligament ends up stretching further than it can accommodate. Some of the fibrous bands, that make up the ligament, will tear and cause a “sprain.” The ends of the torn fibers will curl up upon themselves. They will create scar tissue at the site of the injury, and the ligament will never be as strong again as it was before the sprain. *If all the fibers of the injured ligament are torn, it's called a torn ligament. If surgery is possible, it can re-attach the appropriate torn end of the ligament to the bone and make the foot stable again.* The foot is often the site for a sprain.
- Tendons are the ends of the muscles that attach to the bones. They can also be stretched and partially torn. This is called a “strain.” *A complete tear of the tendon may also be fixed with surgery to stabilize the joint again.* The shoulder is often the site for a strain.
- Both sprains, strains, and tears cause swelling and pain. The severity depends on how many ligament fibers or how much of the tendon have been torn. Is it a partial tear, making it either a sprain or a strain, or is it a



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complete tear. Treatment for a sprain or strain include protecting the area from further injury; restricting activity to allow healing; applying ice to reduce the swelling and pain; applying a compression to stabilize the joint; and elevating the injured area, also to decrease swelling. *If you're unable to bear weight and if the pain does not go away, please don't hesitate to see a doctor to evaluate the severity of the injury and to find out if surgery and/or other treatment is necessary.*

5-Are your feet and legs suddenly swelling and do you have unexplained weight gain and/or shortness of breath:

If your heart pumping is weak, it can't pump the blood around the body adequately. It causes a lot of back pressure on the venous system. There will be a lot of venous blood seeping into the lymph system in your feet and legs. This condition is called congestive heart failure (CHF). If your lungs have lost some of their functional capacity due to emphysema, surgery, injury, or clots in the lungs, the blood supply to the lungs is limited, and it causes a lot pressure within the blood vessels supplying blood to the lungs; as well as back-pressure on the venous system. This condition is called pulmonary hypertension, and it also also causes venous blood to seep into the lymph system in your feet and legs. Both conditions can cause severe swelling in your feet and lower legs, as well as shortness of breath. The severity of the swelling in the feet and legs, as well as the shortness of breath, are both correlated to the severity of either the CHF or pulmonary hypertension.

If you develop generalized swelling, including your feet and lower legs, with unexplained weight-gain, but no shortness of breath; it's likely your kidney's that have become unable to produce adequate urine.

Please see your doctor immediately if you experience any of the above and do not yet have a diagnosis with a treatment plan.



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6-Are your feet and legs suddenly swelling, but without other complications:

This could be dependent edema caused by leaky valves in the veins of your legs. *If you're able to control the edema with interventions for dependent edema you may avoid seeing a doctor. If not, please see the doctor.* The interventions are described in my hand-out on swelling; but, include pumping your calf, thigh, groin, and buttock muscles, with walking, to help pump the venous blood back to the core of your body; resting with your feet at the level of the heart or higher; and wearing compression hose to prevent the swelling from setting in.

Unexplained swelling in one of your legs, arms, or elsewhere in your body, could also be due to a clot in your circulation, blocking the flow of blood. A clot anywhere in the body can cause some plaque to break loose, travel with the circulation, and possibly lodge in your heart or lungs. *Please see a doctor to determine if you have a clot in the leg or elsewhere and get the proper treatment; usually blood thinners.*

7-Do your toe nails have new marks or color variations:

If you notice small black lines or small red or purplish spots in your nails; hemorrhagic spots on the soles of the feet or the palms of the hands; or small red-purplish lesions, with or without a white center, at the end of your toes or fingers, you may suffer from sub-acute bacterial endocarditis (SBE). You may also have clubbing of the fingers or toes, where the end of the digit appears swollen, warm, and red, maybe with a loose nail that is often "spoon-shaped." SBE is a bacterial infection in the inner lining of your heart muscle. It can cause you to feel tired, and it can cause a fever with intermittent chills. The reason for feeling tired and having the abnormalities on the fingers and/or toes, including nails, is due to clots being formed in the lining of the heart, that are being pushed out into the arterial circulation. Such clots can lodge anywhere and minimize or stop the blood flow



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and oxygen supply. (Mix. p. 43) *Please see a doctor right away if you notice these signs and symptoms.*

Poor arterial circulation, whether from SBE, anemia, or peripheral arterial disease will cause signs of visible changes in the finger nails, such as becoming flat, “spoon-shaped” or concave. Symptoms could also include nerve damage from lack of oxygen, such as numbness, tingling, and nerve pain in the feet or hands. *Please see a doctor if you start having such signs and symptoms.*

8-Does your skin have new marks or color variations:

If you start experiencing severe and frequent bruising of unknown cause, you may have a problem with low platelets. There could be a number of reasons; however, the one that comes to mind first would be a blood cancer or a new undiagnosed clotting disorder. *It's important to see a doctor for this problem.*

If you notice a red streak going up the leg, or arm, it's probably not a sign of poisoning of the blood. Rather, it's likely an inflamed lymph vessel. Since the lymph fluids travel throughout your body, this inflammation could spread very quickly and cause a lot of harm. *Please see a doctor immediately.*

9-Do you have new unexplained pain in your feet or legs, either while walking or at rest:

If your skin shows signs of poor arterial circulation with poor delivery of oxygen, such as cool, thin, shiny, and dry skin that tears easily and has lack of hair-growth, you'll likely also feel the pain from your cells being deprived of oxygen. Your muscle cells need oxygen for their energy needs when the muscles start pumping.

If you have to stop and rest due to pain in your legs after walking a short distance, you probably suffer from moderate occlusion of your arteries down your legs. This



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is called intermittent claudication, or “two-block claudication.” Once the pain goes away, you can resume the walking. If, however, you also suffer from pain at night when your body is at rest, you probably suffer from severe occlusion of your arteries down your legs. In that case, the pain is often relieved if you sit on the side of the bed and dangle your legs, allowing gravity to help move the arterial blood down to your feet. With poor arterial circulation in your legs, you'll also notice that your feet might turn bright red when you dangle them and allow gravity to pull the arterial blood down to your feet; and, your feet will turn very pale if you lie flat and raise your legs up above your heart. This time around, gravity pulls blood away from your feet back to the core of your body. *If you have these signs and symptoms, please see your doctor for an evaluation. You may need surgery to restore the arterial blood flow in your legs.*

If your toe(-s) or foot suddenly turn blue and cold, there's a complete lack of arterial blood and oxygen. There's usually severe pain involved, if you're able to feel the pain. This is usually caused by a clot stopping your arterial circulation, and it's a medical emergency.

Be aware that heavy smoking causes your platelets to become more adhesive and more likely to form clots in your circulation. This is another reason that the arterial blood flow is hindered or blocked, causing pain in your muscles cells due to lack of oxygen. *Surgery to restore your arterial circulation will only benefit you for a short time, unless you're able and willing to stop the smoking.*

Sharp, throbbing, and/or shooting pain in the lower back, buttock, hip, or down the leg to the foot can also be due to the sciatic nerve being compressed. It often affects only one side of your body. You won't see any signs on the skin; but, you'll feel the pain. Sometimes the pain comes and goes, depending on your position. Sciatica, which is the name of a compressed sciatic nerve, can happen from compression of the sciatic nerve anywhere between the origin of the nerve in your sacral spine and the foot. The pain will be felt below the area of compression. Be



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aware that the sciatic nerve contains both sensory and motor nerve fibers. With a damaged or compressed sciatic nerve, you may not only feel the associated pain, but also experience numbness, and loss of movement in your leg and foot. *Please see a doctor for evaluation and treatment of sciatic nerve compression or damage.*

10-Have you injured your skin or muscle tissues, and do you have a diagnosis that puts you at higher risk for medical complications:

Lack of oxygen, nutrition, white blood cells, and needed medications into your cells put them at risk for not functioning properly. Your cells will also not function properly if they are unable to give up carbon dioxide and waste. “Not functioning properly” can mean a lot of things. In reference to an injury, it means that the healing process will be slower; and, maybe the healing won't take place at all. Chances for a related infection is also greatly increased.

The lack of oxygen to your cells can be due to lack of oxygen in the arterial blood from anemia, among many other conditions. You can also experience well-oxygenated arterial blood, but have poor arterial flow. The most common causes are diabetes and peripheral arterial disease. The poor arterial supply causes lack of oxygen, as well as lack of nutrition, white blood cells, and medications to your cells.

Interstitial edema, which is swelling caused by excessive lymph fluids in the free spaces between your cells, causes inability of both the arterial blood to give up oxygen, nutrition, white blood cells, and medications to the cells, and an inability of the cells to release carbon dioxide and cell waste to the venous circulation; both at the capillary level. Interstitial edema in your feet and lower legs can be caused by dependent edema, heart or kidney failure, or pulmonary hypertension, causing interstitial edema in both lower legs and feet, or damage to lymph nodes or lymph vessels, and strokes, causing interstitial edema and/or lymph edema on only the affected side.



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All the above signs and symptoms put you at risk for not healing well and increasing your risk for developing infections, if your skin and other tissues have suffered an injury. You need to seek medical help.

11-Other problems not mentioned in this hand-out:

There are many other reasons to seek medical help than mentioned here.

If you take the time to look at the other hand-outs on my website, many of those reasons become evident.

In our current medical system, we like to separate the body into groups and classifications and treat each one separately. However, in real life, all things in your body are more or less tied together and affecting one another. Therefore, it's difficult to concentrate on only one thing, without involving all the other aspects that are affected.

The intention of this hand-out is merely to give you some general guidelines for when you need to seek medical help. If you find a problem with your feet or legs, or anywhere else in your body, not mentioned here, that makes you uncomfortable, please don't hesitate seeking medical advice.

12-References and links:

- The greatest inspiration for this hand-out is “The Salon Professional's Guide to Foot Care,” by Godfrey Mix, DPM, published by Milady SalonOvations, in 1999.
- I have also had great use of my book from the college of nursing, “Medical-Surgical Nursing, 5th Edition, by Phipps, Cassmeyer, Sands, and Lehman, published by Mosby in 1995.
- Please review the other hand-outs from my website on body and foot health.

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